

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION**

**FIRST REVISED TENTATIVE CEASE AND DESIST ORDER  
FOR**

**JG WESTSTEYN DAIRY, LP; WESTSTEYN 2015 IRREVOCABLE TRUST; JAKE  
AKA JAKOB AS TRUSTEE OF THE WESTSTEYN 2015 IRREVOCABLE TRUST;  
AND GLADYS WESTSTEYN AS TRUSTEE OF THE WESTSTEYN 2015  
IRREVOCABLE TRUST  
JG WESTSTEYN DAIRY  
GLENN COUNTY**

**PROSECUTION TEAM'S TECHNICAL AND LEGAL ANALYSIS  
SUPPORTING THE PROPOSED CEASE AND DESIST ORDER**

**Introduction**

The Central Valley Water Board Prosecution Team recommends the Central Valley Water Quality Control Board (Central Valley Water Board) adopt the proposed Cease and Desist Order (CDO) to compel JG Weststeyn Dairy, LP, the Weststeyn 2015 Irrevocable Trust (Trust), and Jake (aka Jakob) and Gladys Weststeyn, as trustees of the Trust (collectively referred to as CDO Dischargers), the owners and operators of the JG Weststeyn Dairy (Dairy<sup>1</sup>), and its associated land, to comply with Individual Waste Discharge Requirements Order R5-2009-0082 (WDRs).

The Prosecution Team alleges that there are multiple violations of the WDRs and that the First Revised Tentative CDO (dated 6 May 2021) ("CDO") is necessary to ensure the Dischargers do not violate, or threaten to violate, the WDRs and adversely impact water quality. The alleged violations are described in Findings 32-46 and Attachment C of the CDO, and are supported by Evidence Exhibits 25-52. The alleged violations are summarized as follows:

1. Violations of the WDRs' prohibition against discharges to surface water:

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<sup>1</sup> The WDRs define the term "facility" as The Weststeyn Dairy. The WDRs also describe the Dairy Facility as follows: "The facility is located on 1382 acres, all of which is owned by Bert Weststeyn. Land under agricultural production at the facility is located on Assessor's Parcel Numbers 014-170-021, 014-170-028, 014-170-039, 014-170-041, 014-170-042, and 014-170-043." All of the alleged violations arise from conduct which took place at this Dairy Facility. However, the Prosecution Team notes that in various documents the Dairy is referred to as JG Weststeyn Dairy, the Weststeyn Dairy, or Weststeyn Dairy Farms. In this document, the Prosecution Team uses Dairy to refer to the operation at this location.

- a. Discharge of dairy waste to Baker Slough, a water of the State.
2. Violations of the WDRs' Interim Groundwater Limitations:
    - a. Failure to maintain two feet of freeboard in the permitted wastewater lagoon, resulting in dairy waste flowing into the gas vents that extend underneath the lagoon's liner, thus directly discharging dairy waste to groundwater; and
    - b. Additional discharges of dairy waste in a manner that has caused groundwater to exceed the interim groundwater limitations for nitrate as nitrogen and electrical conductivity.
3. Violations of the WDRs' Specifications for wastewater storage and distribution, including the following:
    - a. Construction and use of an unpermitted wastewater lagoon, allowing wastewater to overflow the unpermitted lagoon, and allowing wastewater to pond on the 10-acre "pasture;"
    - b. Storage of dairy waste in the tailwater pond and the stormwater pond;
    - c. Inability to irrigate cropland with dairy waste, because a permanent pump and piping system had not been constructed to move wastewater into and out of the permitted wastewater lagoon;
    - d. Failure to maintain at least two feet of freeboard in the permitted lagoon;
    - e. Allowing manure slurry to flow out of the composting barns onto native soil, actively placing manure slurry into unpermitted basins, and failing to convey leachate from these areas to the permitted lagoon; and
    - f. Allowing leachate and stormwater from the commodity pad and manure storage area to flow through unlined ditches to the tailwater pond.
4. Violations of the WDRs' Specifications for land application of manure, including the following:
    - a. Application of manure and wastewater onto land for purposes other than nutrient recycling;
    - b. Failure to follow or revise the Nutrient Management Plan;
    - c. Over application of manure to cropland, resulting in violation of the WDRs' nitrogen applied-to-removed ratio limits;
    - d. Drying slurry manure in a manner that resulted in multiple complaints of nuisance conditions in 2020; and
    - e. Failure to plant crops within 60 days of applying dairy waste to land.
5. Violation of the WDRs' Prohibition on disposal of dead animals:
    - a. Burial of dead animals onsite from 2011 through 2017.

6. Violations of other requirements of the WDRs, including the following:
- a. Increasing the herd size above that allowed in the WDRs;
  - b. Failure to collect samples to demonstrate whether or not the composting barns have the potential to adversely impact groundwater;
  - c. Failure to install a fourth groundwater monitoring well;
  - d. Failure to submit required Annual Reports, Groundwater Monitoring Reports, and Storm Water Reports; and
  - e. Failure to submit other technical reports.

## Background

Between 2008 and 2009, Bert and Jake Weststeyn submitted multiple documents that together comprise a Report of Waste Discharge (ROWD) for the operation of a new dairy near the town of Willows in Glenn County. The Central Valley Water Board adopted individual WDRs for the Dairy on 13 August 2009<sup>2</sup>, allowing the Dairy to house a maximum of 4,957 Holstein cows and to apply wastewater and solid manure to 1,278 acres of cropland.<sup>3</sup>

In discussions with Central Valley Water Board staff, Stephen Weststeyn stated that approximately 2,000 cows were brought onto the property in 2011; however, a Google Earth image from March 2010 shows that cows were already being housed and manure slurry was flowing out of two barns. Regardless of whether animals were brought onto the Dairy in 2010 or 2011, the waste management system had not yet been constructed. Milking began in January 2017, although the waste management system was still not fully operational. To date, the infrastructure described in the WDRs has not been constructed and the composting barn management practices proposed in the ROWD and incorporated into the WDRs have not been consistently utilized. Even so, the Dairy has been populated with the maximum, and at times more than the maximum, number of cows allowed by the WDRs. (Exhibits 1, 2, 11-15, 26, 30, 65).

The Dairy is unusual, compared to most other milk-cow dairies in California, in that the cows are housed and fed in four large "composting barns." The entire barn is covered by a roof. Except for the concrete feed lane, each barn is an open resting area with an earthen floor covered by at least one foot of compost (almond hulls, rice hulls, or other

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<sup>2</sup> The Dairy could not be enrolled under the Waste Discharge Requirements General Order for Existing Milk Cow Dairies (R5-2007-0035) because the General Order only applied to dairies in existence as of October 2005.

<sup>3</sup> As shown in Exhibit 54 and discussed further below, 505 acres of this land is currently for sale.

organic material). The only moisture added to this surface is manure and urine excreted by the resting cows. To function properly, composting barns must be actively managed, including tilling the compost twice a day to incorporate the waste and provide oxygen to stimulate the composting process. Additional organic material must be added whenever the compost becomes wet. The WDRs state that the compost will be removed twice per year and either applied to cropland at the Dairy or sold to nearby farmers. There are several advantages to properly operated composting barns (as opposed to flush lane facilities), including improved cow comfort and health. In addition, solid manure is stored within the barn itself, resulting in less liquid waste to manage. The use of composting barns was expected to significantly reduce the volume of wastewater generated at the Dairy. (Exhibits 2, 60-63).

Both the ROWD and the WDRs state that 2,200 milk cows will be housed in four composting barns while the remaining 2,757 support stock will be housed in numerous other barns. However, only the four composting barns have been constructed and all cows, except baby calves, are housed in these four barns. It is unclear if the four existing composting barns are the same size as, or larger than, originally described in the ROWD and the WDRs. Furthermore, the composting barns are not managed as described in the WDRs (i.e., the Discharger does not till the compost twice daily, does not remove the compost twice yearly, does not dry scrape the feed lanes).

The initial Tentative CDO required the Dairy to reduce its herd size to 2,200 milk cows in the four composting barns, so that the herd could be housed as discussed in the ROWD and the WDRs. The Dairy's herd size is a concern because overloading the composting barns results in three water quality issues: (1) dirty cows which require more water to clean prior to milking, resulting in increased flows to the wastewater lagoon; (2) a potential for nitrogen and salt to move through the compost and into the soil/groundwater beneath the barns; and (3) excess slurry manure in the feed lanes, which presents a significant management challenge not anticipated in the WDRs. Although several of the alleged violations of the WDRs are due to these underlying issues, the Prosecution Team realizes there are multiple ways to resolve them, including reducing the herd size, constructing other barns, and/or improved management practices. While the First Revised Tentative CDO requires that the violations be addressed, it is up to the CDO Dischargers to decide how best to comply. (Exhibits 1, 2, 25-52).

## **Legal Analysis**

The following section of this brief analyzes the legal bases upon which each discharger is named in the First Revised Tentative CDO. Consistent with recently adopted Name

Change Order R5-2021-0033 and our current understanding of operations at the Dairy, the CDO defines the following entities and persons as “Dischargers:” JG Weststeyn Dairy, LP, the operator and owner of the Dairy; the Weststeyn 2015 Irrevocable Trust (Trust), the owner of the land as reported by representatives of the Dairy; and Jakob and Gladys Weststeyn, as trustees of the landowning Trust. For the reasons detailed below, each of these individuals and entities are responsible for compliance with the WDRs under their express terms and therefore should be named in the CDO.

### I. Factual History

The First Revised Tentative CDO reflects the current “Dischargers,” as that term is defined in the WDRs, following significant confusion and a lengthy process that which ultimately was resolved through the adoption of the most recent name change order. What follows is a brief summary of the permittees enrolled in the WDRs and the Central Valley Water Board’s recent attempts to modify the WDRs.

In 2009, the WDRs were issued to “Bert Weststeyn and Weststeyn Dairy Farms, dba Weststeyn Dairy.” (See Exhibit 2.) The WDRs identified (1) “Weststeyn Dairy Farms,” the “facility” owner and likely a fictitious business entity, and (2) Bert Weststeyn, the facility operator and owner of the land application area, as the “discharger.” (See *id.*, par. 1.) The WDRs ordered “Weststeyn Dairy Farms and Bert Weststeyn dba Weststeyn Dairy, its owners, tenants, agents, successors, and assigns” to comply with the terms of the WDRs. (See *id.*, p. 7.) Furthermore, the WDRs required that the “Discharger” notify the Central Valley Water Board of changes in ownership or control of the Dairy, and that “any succeeding owner or operator” request, in writing, that the Executive Officer transfer the WDRs to the succeeding owner or operator. (See *id.*, § C.2-3.)

On or about 26 March 2016, permittee Bert Weststeyn submitted a request to change the owner and operator identified in the WDRs. (See Exhibit 3.) However, this request was never processed due to administrative issues and staff error. It was only in the fall of 2020, when staff was investigating ongoing noncompliance with the WDRs, that this error was discovered.

Although the Central Valley Water Board made numerous attempts to correct the error, reaching out to Stephen Weststeyn, Jake Weststeyn, and the Dairy’s consultant, when the Tentative CDO was first issued there was some ambiguity about who amongst a constellation of Weststeyn entities and individuals would eventually be named on the WDRs, and therefore it was not entirely clear who the appropriate parties were to name on the CDO. As a result of this confusion, the Prosecution Team erred on the side of caution and named likely owners and operators of the Dairy.

At the request of the Central Valley Water Board, on 18 December 2020 Stephen Weststeyn submitted a Form 200 request to change the owner and operator of the Dairy and its associated land, but upon review by Central Valley Water Board staff it was clear the form contained numerous errors about the owners and operators of the Dairy and associated land. (See Exhibit 5.) A second revised Form 200 submitted on 23 December 2020 also contained errors. (See Exhibit 6.) Confusion remained about the appropriate permittees for the WDRs, which was further complicated by an inaccurate Name Change Order adopted in February 2021. It was only on April 22 that the Central Valley Water Board adopted the operative Name Change Order, which identified JG Weststeyn Dairy, LP as the dairy owner and operator, and identified the Trust as the landowner. Based on conversations with Dairy representative Stephen Weststeyn and a review of public information, it is the Prosecution Team's understanding that Jake and Gladys Weststeyn are the trustees of the Trust. (See Exhibits 57 & 66.)

## II. Analysis

The basis upon which each discharger is named is simple, based on a plain reading of the WDRs and recently adopted Name Change Order R5-2021-0033. (See Exhibit 8.)

### 1. JG Weststeyn Dairy, LP

First, the JG Weststeyn Dairy, LP is the dairy owner and operator on the operative Name Change Order.<sup>4</sup> Like Bert Weststeyn before it, JG Weststeyn Dairy, LP is a "discharger" under paragraph 1 of the WDRs, and therefore subject to compliance with the WDRs under the "hereby ordered" provision of the WDRs (p. 7).

### 2. Weststeyn 2015 Irrevocable Trust

Second, the First Revised Tentative CDO properly names the Trust. The Form 200 submitted on behalf of the current Dairy owners and operator identifies the Trust as the owner of the land associated with the Dairy, and this was reiterated in a meeting between Central Valley Water Board staff and the Dairy's representatives. (See Exhibits 6 & 57.) Consistent with this information, the operative Name Change Order identifies the Trust as the landowner. As the Advisory Team itself noted in its transmittal letter for the hearing procedures in this case, "CDOs are ordinarily only issued to the

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<sup>4</sup> As recognized by the Advisory Team in its cover letter accompanying the hearing procedures for this and a related matter, the Form 200 submitted by the Dairy indicated that the "JG Weststeyn Dairy" was a "partnership"; based on this information and a review of Secretary of State records, it is the Prosecution Team's understanding that this entity should correctly be identified as JG Weststeyn Dairy, LP.

parties that are actually named as 'dischargers' under the operative WDRs. (See transmittal letter for hearing procedures, p. 8.) Therefore, the Trust is the landowner and a "discharger" in paragraph 1 of the WDRs, and the Trust is subject to the terms of the WDRs under the hereby ordered provision of the WDRs.

Although the Prosecution Team recognizes the Trust may not be an appropriate defendant in civil court, and that it may not be appropriate to impose an administrative civil liability on a trust, it notes that the *Discharger and Central Valley Water Board* have named the Trust as a permittee on the WDRs. Thus, as requested by the Advisory Team the Prosecution Team has named the Trust on the CDO. In recognition of principles of California trust law, however, the Prosecution Team has also named the trustees in their representative capacity.

### 3. Trustees of Weststeyn 2015 Irrevocable Trust

Last, Stephen and Gladys Weststeyn have been appropriately named in the Revised Tentative CDO in their representative capacity, as trustees of the Trust. Publicly available records about the property indicates that the land associated with the Dairy is held in trust by Jake and Gladys Weststeyn as the trustees of the Trust. (See Exhibit 66.) In addition, on a 21 December 2020 call with Central Valley Water Board staff, Stephen Weststeyn confirmed that Jake and Gladys Weststeyn are the trustees of the Trust. (See Exhibit 57.) Under California Probate Code section 18004, "[a] claim based . . . on an obligation arising from ownership or control of trust property . . . may be asserted against the trust by proceeding against the trustee in the trustee's representative capacity." Therefore, and as recognized by the Advisory Team in its cover letter accompanying the hearing procedures for this case, Stephen and Gladys Weststeyn are appropriately named as dischargers.

For the reasons set forth above, each Discharger is properly subject to the terms of the WDRs and should be subject to compliance with the First Revised Tentative CDO.

## Technical Analysis

In general, the Dairy's long-standing water quality violations are the result of its owners and operators failing to construct all aspects of the waste management system prior to populating the Dairy with cows, poor maintenance, lack of storage capacity, and failing to appropriately apply wastewater to cropland. The proposed CDO is designed to address these long-term, and ongoing, issues by requiring the CDO Dischargers to make the necessary changes and upgrades that would allow it to operate in compliance with its WDRs.

Prior to issuance of the Tentative CDO on 27 January 2021, the Prosecution Team shared an administrative draft with the CDO Dischargers' representatives, Jake and Stephen Weststeyn and the Dairy's consultant, Joe Corp, and made edits based on information and comments provided. Since issuance of the Tentative CDO, the Prosecution Team has had several discussions with the CDO Dischargers' representatives and has made additional edits to the Tentative CDO. (Exhibits 57, 67).

The Revised Tentative CDO is included with this pre-hearing submittal. The following technical analysis summarizes and expands on the main requirements of the Revised Tentative CDO. Each category of violation outlined in the "Introduction" is listed below, with a brief description of the violations and the resulting CDO requirement.

1. The Dairy has discharged waste to surface waters in violation of the WDRs. Dairy wastewater and tailwater have historically been allowed to flow into Baker Slough, a water of the State. In response, the Central Valley Water Board issued Cleanup and Abatement Order R5-2018-0700 (CAO) to Jake Weststeyn DBA Weststeyn Dairy Farms; the Dairy is in partial compliance with that the CAO. To further address this threatened discharge, the CDO prohibits the storage of any dairy waste in the tailwater pond as of 1 August 2021. However, as requested by the CDO Dischargers' representatives, some flexibility is allowed in that tailwater may remain in the tailwater pond for 72 hours following irrigation before it is pumped back to the permitted lagoon.
2. The WDRs' Interim Groundwater Limitations have been consistently exceeded. The Interim Groundwater Limitations state that the release of dairy waste shall not cause or contribute to groundwater exceeding a nitrate-nitrogen concentration of 10 mg/L or an electrical conductivity of 900 umhos/cm (or exceeding background, if higher than the limitations). Three groundwater monitoring wells were installed at the Dairy in 2008, and groundwater has been encountered at depths of 15-25 feet below ground surface. Groundwater monitoring shows exceedances of both the nitrate-nitrogen and electrical conductivity Interim Groundwater Limitations downgradient of the area in which wastewater and slurry has been inappropriately disposed. To address this, the CDO contains numerous requirements intended to bring Dairy operations back into compliance with the WDRs and to protect groundwater. These requirements are discussed below. In addition, the CDO requirements listed in Item 3, below, also relate to groundwater protection.
  - A pipe and valve were installed to divert dairy wastewater away from the permitted lined lagoon and into the unlined storm water pond. This pipe and valve must be removed immediately, to prevent future discharges to groundwater,



and a report documenting the removal must be submitted by 1 August 2021.

- The CDO Dischargers have failed to maintain the required two feet of freeboard in the permitted wastewater lagoon. The lagoon is constructed with a HDPE double liner and extends to 14 feet below ground surface<sup>5</sup>. Since the bottom of the lagoon is so close to groundwater, a gas venting system was installed to reduce the potential for gas buildup. The venting system extends from underneath the lagoon liner to openings in the liner about one foot below the top of the liner. Due to the CDO Dischargers' ongoing failure to maintain two feet of freeboard in the lagoon, wastewater flows into the gas vent openings and through the gas vents to the vadose zone underneath the lagoon. To prevent this in the future, the CDO requires submittal of an Updated Waste Management Plan (WMP) by 15 October 2021. Among other items, the WMP must specify the minimum freeboard on 1 November of each year that is necessary to ensure there is adequate capacity throughout the winter in the permitted lagoon. The WMP must also include target freeboard levels for each month, such that the minimum freeboard will be met by 1 November of each year. In addition, the CDO requires submittal of a Contingency Plan if the 1 November target freeboard level is not met in any year. The Contingency Plan must describe how the CDO Dischargers will reduce the volume of wastewater produced so that a minimum of two feet of freeboard will be maintained throughout the winter.
- The CDO Dischargers have been storing dairy wastewater in the storm water basin, using a vacuum truck to discharge slurry manure to several additional unpermitted basins, and allowing slurry manure to overflow to soil from the composting barns and manure separator. As of 1 August 2021, the CDO prohibits the CDO Dischargers from storing wastewater or slurry manure anywhere other than the permitted wastewater lagoon. The CDO Dischargers' representatives requested a modification to allow temporary storage of manure slurry in the concrete transfer lanes if the manure separator breaks down. The Prosecution Team agreed that this is reasonable and modified the CDO to allow manure slurry to be temporarily stored (for no more than 72 hours) on the concrete transfer lanes as long as manure does not spill onto soil.

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<sup>5</sup> At the time of construction, the bottom of the lagoon was within one foot of high groundwater. The pond design includes two features to address the high groundwater: drain lines installed at 20 feet below ground surface to dewater the pond and geocomposite strips installed along the side slopes to vent any gasses from beneath the liner.

- The WDRs required the installation of a fourth groundwater monitoring well, which has not been installed to date. Therefore, the CDO requires the submittal of a Monitoring Well Installation Workplan by 1 June 2023 and the submittal of a Monitoring Well Installation Completion Report by 1 November 2023. The CDO states that the well should be installed on the east (downgradient) side of the Dairy, with a location based on waste disposal practices and the current monitoring well network.

3. Wastewater management practices at the Dairy have consistently violated WDRs Specifications related to wastewater storage and disposal. The Dairy generates significantly more wastewater than was anticipated in the ROWD or the WDRs and has not appropriately irrigated cropland with wastewater. To manage this excess waste, an unpermitted wastewater pond has been constructed. The CDO Dischargers generated so much wastewater that this unpermitted pond filled up and then wastewater overflowed into the surrounding soil. Also, wastewater has been allowed to pond on a 10-acre "pasture" area, and wastewater has been stored in the storm water pond and the tailwater pond. The CDO Dischargers have allowed manure slurry to flow out of the barns onto soil and use a vacuum truck to transport slurry for disposal into unpermitted basins. The Dairy does not have appropriate waste management features for the commodity pad, and therefore leachate has flowed off this pad into unlined ditches and into the tailwater pond.

The CDO requires that the CDO Dischargers change management practices and construct improvements such that dairy waste is managed in a manner allowed by the WDRs. In particular, the CDO requires the following:

- As described above in Item 2, as of 1 August 2021, the CDO Dischargers are prohibited from storing dairy wastewater anywhere other than the permitted lagoon and temporarily in the concrete transfer lanes. In addition, by 1 August 2021, the CDO Dischargers must remove the pipe/valve that allowed wastewater to flow into the storm water pond.
- The CDO Dischargers must construct improvements to the commodity pad to ensure that all leachate from the pad flows to the permitted lagoon and that no leachate ponds on soil or enters the tailwater pond. In addition, a permanent pump must be installed to pump the leachate into the permitted lagoon. A report documenting the upgrades is due by 1 December 2021.
- As of 1 August 2021, the CDO prohibits drying or storing solid manure or slurry manure on unimproved bare ground, including the unpermitted basins. The CDO

also prohibits use of the composting barn vacuum truck to spread slurry manure on the ground or in the unpermitted basins. The CDO Dischargers' representatives have asked to continue using the vacuum truck to spread slurry manure. However, the WDRs do not describe this practice and the historic use of the vacuum truck has resulted in adverse impacts to groundwater; therefore, the CDO does not incorporate the use of a vacuum truck. The CDO also requires a report by 1 December 2021, documenting that slurry manure has been removed from all unpermitted areas and that this manure has either been applied to cropland at agronomic rates or removed from the Dairy.

- The CDO Dischargers' representatives have requested that the CDO allow temporary storage of solid manure on a soil pad or on the concrete commodity pad. In support of this request, the CDO Dischargers' representatives have offered to construct a soil pad with the same specifications as found in the State Water Board's General Order for Composting Facilities (in particular, soil compaction to a hydraulic conductivity of  $1 \times 10^{-5}$  cm/sec). The Prosecution Team believes that this type of pad would meet the intent of the WDRs, and therefore the CDO allows temporary storage of solid manure on an approved soil pad or on the concrete commodity pad. Prior to constructing the soil pad, the CDO Dischargers must submit a workplan; after construction but prior to use, the CDO Dischargers must submit a completion report.
- A manure separator was installed to separate manure from the slurry generated in composting barns' feed lanes. However, the separator regularly breaks down, resulting in (a) manure slurry flowing onto soil next to the barns and the separator, and (b) the vacuum truck operator discharging slurry to unpermitted basins instead of the separator. In addition, the separator appears to be on too small of a concrete pad, which also allows waste to overflow to soil. The CDO requires that by 1 December 2021, the CDO Dischargers submit a Manure Separator Upgrade Report that evaluates the efficacy of the current separator and proposes any needed upgrades such that the separator can reliably remove solids from the milk barn and all four composting barns. If upgrades are needed, they are to be completed by 1 December 2022. Although a year is allowed for upgrades, the CDO Dischargers will still be expected to comply with other aspects of the CDO and WDRs, such as the prohibition against manure slurry being discharged to soil or unpermitted basins.
- Consistent with the WDRs' requirements for updating a WMP, the CDO requires that the CDO Dischargers submit an updated WMP by 15 October 2021. The updated WMP is to reflect all upgrades required by the CDO, the maximum

allowed herd size, all sources of inflow into the permitted lagoon, upgradient storm water flows into the tailwater pond, the practical minimum freeboard for the permitted lagoon, any constraints placed by the NMP on Dairy operations, and an updated Operation and Maintenance Plan.

4. Numerous Specifications of the WDRs related to the land application of manure have been violated. The CDO Dischargers have been applying manure and wastewater onto cropland for purposes of disposal instead of as fertilizer for growing a crop; failing to plant crops within 60 days of applying dairy waste to land; failing to follow the Nutrient Management Plan (NMP); and over-applying manure to cropland, resulting in violation of the WDRs' nitrogen applied-to-removed ratio limits. The Revised Tentative CDO addresses these violations as follows:

- The CDO reiterates that the CDO Dischargers cannot exceed the herd size limits found in the WDRs.
- The CDO incorporates the WDRs' requirement that the NMP be updated to reflect management changes to ensure that the nitrogen applied-to-removed ratio does not exceed 1.4 for each crop and each field. This document is due by 15 October 2021.
- The WDRs state that 520 acres of cropland will be irrigated with wastewater. A review of the Annual Reports shows that significantly less acreage has been irrigated with wastewater and that the cropland has been consistently overloaded with nitrogen, thus exceeding the WDRs' limits of the nitrogen applied-to-removed ratio. To address these issues, the CDO requires (a) that the CDO Dischargers submit, by 1 August 2021, documentation that it can irrigate 520 acres with the wastewater contained in the permitted lagoon, and (b) that the CDO Dischargers install a flow meter by 15 October 2021 to accurately record the volume of wastewater delivered from the permitted lagoon to cropland. In addition, the CDO reiterates the WDRs' requirement that if any Annual Report shows that a nitrogen applied-to-removed ratio of 1.4 was exceeded, then an updated NMP must be submitted, and if a nitrogen applied-to-removed ratio of 1.65 was exceeded, then an updated WMP must be submitted.
- The Annual Reports show that nitrogen has been significantly over-applied to seven fields. The CDO requires that soil samples be collected from these fields each fall, beginning in the fall of 2021. Samples shall be analyzed for total nitrogen and the results recorded in the Annual Report. The CDO Dischargers'

representatives requested a few changes to the sampling program, and the 6 May 2021 version of the Revised Tentative CDO incorporates these changes.

5. There is a history of violations related to other requirements of the WDRs.

Historically, there has been a failure to submit monitoring reports and the CDO reiterates the need to submit complete, timely reports. In addition, the failure to submit the "Composting Barn Soils Report" is specifically addressed in the CDO, as described below.

- Improper operation of the composting barns (i.e., too many cows, lack of tillage, lack of routine removal of compost, etc.) can result in the potential for water quality impacts. Therefore, the WDRs state that the CDO Dischargers must take pre-operation soil samples from the earthen floors of the composting barns and take samples again after one year of operation. Finding B.10 of the WDRs further states that "[i]f the sampling indicates that waste constituents are moving into the soil beneath the barns, the barns will be retrofitted with concrete floors."

The composting barns were first used in 2010 or 2011 but pre-operation soil samples were never taken as required by the WDRs. Soil samples were collected in 2017, but only the laboratory analytical reports were submitted and there is no indication as to the location or depth of the samples. Because cows have populated the composting barns for over ten years, it is not possible for the CDO Dischargers to complete the sampling exactly as envisioned by the WDRs. However, the CDO requires that the CDO Dischargers meet the intent of the WDRs by collecting soil samples from the earthen floors beneath the compost in each of the four composting barns, as well as collecting background soil samples from an area of the Dairy that does not receive manure or fertilizer. The CDO Dischargers shall submit a report of these results by 1 April 2022. If the soil sampling shows a statistically significant increase in salinity, then the CDO Dischargers must comply with Finding B.10 of the WDRs and retrofit the barns with concrete floors by 31 December 2024.

### **Anaerobic Manure Digester**

The CDO Dischargers' representatives have stated that the CDO should be revised to allow the installation of an anaerobic digester, as they believe that a digester is the key

to addressing ongoing and historic violations of the WDRs<sup>6</sup>. However, the CDO does not incorporate a digester for two reasons. First, the WDRs do not authorize installation of a digester. Provision D.5 of the WDRs states that a ROWD must be submitted at least 140 days prior to construction of an anaerobic digester. An ROWD has not been submitted to date.

Second, the Glenn County Planning Department approved a Site Plan Review in February 2017 for installation of a digester at the Dairy. Condition of Approval No. 4 states, in part, "Prior to a building permit being issued for the proposal, the current manure management practices shall be corrected so that solid manure is only stored in areas that are designated for solid manure storage, and any leachate from the solid manure is conveyed to the lined lagoon." Based on this condition, the CDO Dischargers must construct manure management upgrades, consistent with the requirements of the CDO, before receiving County permitting documents which would allow them to build the digester. The CDO simply cannot authorize use of a digester and cannot included timelines to install a digester as a method to resolve any of the WDR violations.

However, the Prosecution Team has committed to updating the CDO in the event that the Central Valley Water Board adopts new or modified WDRs to allow installation of a digester at the Dairy.

### **Summary**

The Prosecution Team recommends that the Board adopted the proposed CDO so that the CDO Dischargers are placed under an enforceable time schedule to bring the Dairy into compliance with its WDRs. The proposed CDO has been structured to provide the Discharger with a reasonable timeline to resolve the issues that have been identified at the Dairy and contributed to historic, and ongoing, violations and threatened violation of the WDRs.

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<sup>6</sup> The Prosecution Team believes that a digester could address only a small portion of the CDO Discharger's violations.